

## INTERNATIONAL SEARCH REPORT

Inte

Application No

PCT/IB2004/052281

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F13/16

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 006, no. 092 (P-119), 29 May 1982 (1982-05-29) & JP 57 027330 A (HITACHI LTD), 13 February 1982 (1982-02-13) abstract -----	1,12
A	US 6 366 984 B1 (CARMEAN DOUGLAS M ET AL) 2 April 2002 (2002-04-02) the whole document -----	1-8,12
A	US 6 122 715 A (PALANCA ET AL) 19 September 2000 (2000-09-19) the whole document -----	1-8,12
A	US 5 561 780 A (GLEW ET AL) 1 October 1996 (1996-10-01) the whole document -----	1-8,12
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

15 March 2005

Date of mailing of the international search report

27/05/2005

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 841 435 A (PAPENBERG ET AL) 20 June 1989 (1989-06-20) abstract column 1, line 8 - column 3, line 33 -----	1-8,12

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-8,12

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8, 12

Arranging data bits from a plurality of data words of less than the maximum number of bits of a bus cycle and placing these in combination on the data bus.

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2. claims: 9-11, 13

Selecting a distribution of data words such that the logic level changes on the data lines is minimized.

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Internat. application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 57027330	A 13-02-1982	NONE	
US 6366984	B1 02-04-2002	NONE	
US 6122715	A 19-09-2000	NONE	
US 5561780	A 01-10-1996	NONE	
US 4841435	A 20-06-1989	WO 8803292 A1	05-05-1988